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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,752	08/25/2003	Robbert C. Van Der Linden	SVL920030054US1/2865P	3744
45728	7590	11/12/2009		
IBM ST-SVL SAWYER LAW GROUP LLP 2465 E. Bayshore Road, Suite No. 406 PALO ALTO, CA 94303			EXAMINER COLAN, GIOVANNA B	
			ART UNIT 2162	PAPER NUMBER
			NOTIFICATION DATE 11/12/2009	DELIVERY MODE ELECTRONIC

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ROBBERT C. VAN DER LINDEN, STEFAN TOBIAS MAYR,
and BRAIN S. VICKERY

Appeal 2008-005734
Application 10/648,752
Technology Center 2100

Decided: November 9, 2009

Before LANCE LEONARD BARRY, HOWARD B. BLANKENSHIP, and
JAY P. LUCAS, *Administrative Patent Judges*.

BARRY, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

The Patent Examiner rejected claims 1, 3-11, 13-21, and 23-36. The Appellants appeal therefrom under 35 U.S.C. § 134(a). We have jurisdiction under 35 U.S.C. § 6(b).

INVENTION

The invention at issue on appeal parses a structured document and generates nodes to form a hierarchical node tree representing the document. Each node that has children includes child pointers; stored in each pointer is a hint related to the child node to which the pointer points. When evaluating a query, a database management system (DBMS) navigating the node tree during query evaluation follows those pointers that contain a hint that matches a query. (Spec. 2-3.)

ILLUSTRATIVE CLAIM

1. A method for querying a structured document stored in its native format in a database, wherein the structured document comprises a plurality of nodes that form a hierarchical node tree, the method comprising the steps of:

(a) providing at least one child pointer within at least one of the plurality of nodes in the hierarchical node tree, wherein the at least one child pointer points to a corresponding child node in the hierarchical node tree;

(b) storing a hint within the at least one child pointer, the hint being related to the corresponding child node, wherein the at least one child pointer further comprises a node slot number of the corresponding child node; and

(c) utilizing the hint to determine whether to navigate to the corresponding child node during query evaluation.

PRIOR ART

IGATA

6,853,992 B2

Feb. 8, 2005
(filed Nov. 30, 2000)

MANIKUTTY	6,836,778 B2	Dec. 28, 2004 (filed May 1, 2003)
BAILEY	2004/0243553	Dec. 2, 2004 (filed May 30, 2003)

REJECTIONS

Claims 1, 3-5, 9, 11, 13-15, 19, 21, 23-25, 29, and 31-36 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Igata.

Claims 6, 10, 16, 20, 26, and 30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Igata and Manikutty.

Claims 7, 8, 17, 18, 27, and 28 stand rejected under § 103(a) as being unpatentable over Igata and Bailey.

ISSUE

The Examiner makes the following findings.

With respect to Fig. 12C [of Igata], item: "PART1 0 1"; the Examiner interprets PART1 together with the arrow pointing to item: "PART2 1 2" as the child pointer claimed; wherein the PART1 corresponds to the hint claimed; and wherein, as shown in such Figure, the hint "PART1" is related to the corresponding child node ("PART2 1 2"), because "1" is included in "PART1" and is related to "PART2 1 2" ("1" in PART1 and "1" of PART2 1 2", emphasis added)."

(Ans. 13.)

The Appellants argue that "the 'PART1' in FIG. 12C of Igata cannot be construed as disclosing, teaching, or suggesting the 'hint . . . relat[ing] to the corresponding child node" (Reply Br. 4.)

Therefore, the issue before us is whether the Appellants have shown error in the Examiner's finding that Igata teaches storing a hint within a child pointer of a parent node, the hint being related to a corresponding child node and using the hint to determine whether to navigate to the corresponding child node when evaluating a query.

LAW

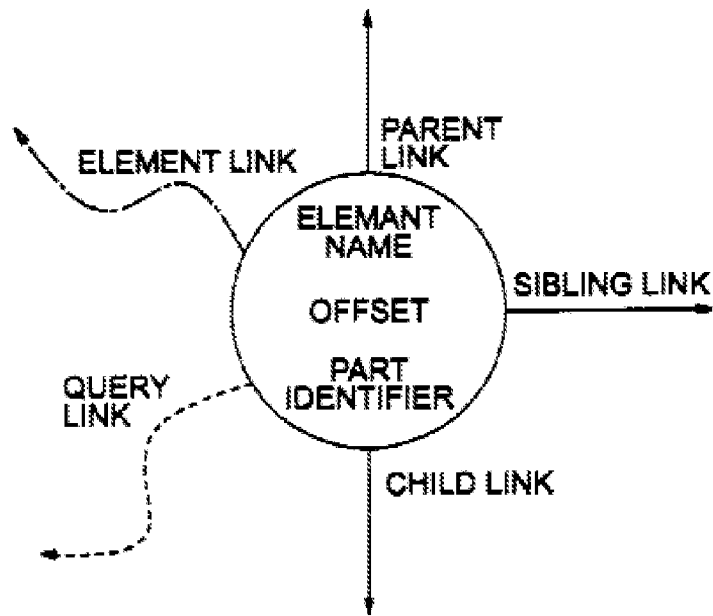
"It is axiomatic that anticipation of a claim under § 102 can be found only if the prior art reference discloses every element of the claim" *In re King*, 801 F.2d 1324, 1326 (Fed. Cir. 1986) (citing *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1457 (Fed. Cir. 1984)).

FINDINGS OF FACT (FFs)

1. Igata's "FIGS. 2A and 2B show an example structure of the hierarchical index 13." (Col. 7, ll. 23-24.)

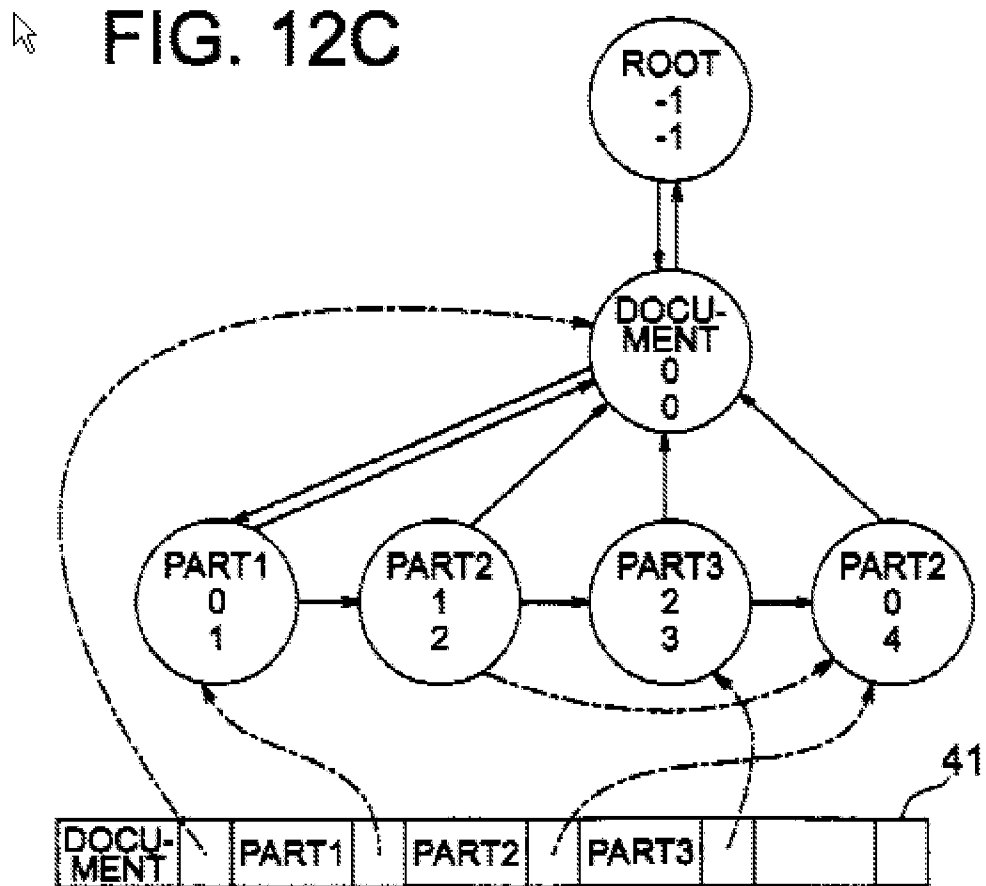
2. Figure 2B follows.

FIG. 2B



"As shown in FIG. 2B, each node has an element name, an offset in a row of sibling parts in the document, a part-ID for identifying a meta part, a link to a parent node (a parent link), a link to a sibling node (a sibling link), and a link to a child node (a child link)." (*Id.*, ll. 47-51.)

3. Figure 12C follows.



ANALYSIS

For its part, Igata depicts parent nodes as vertically above child nodes and sibling nodes as horizontally adjacent to each other. (FF 2.) As mentioned *supra*, the Examiner reads the claimed parent node on the node labeled "PART1 0 1" in Figure 12C and the claimed child node on the node labeled "PART2 1 2." The Figure depicts the node labeled "PART1 0 1" and the node labeled "PART2 1 2" as horizontally adjacent each other (FF 3), however, rather than one vertically above the other. Therefore, we agree with the Appellants

that "node 'PART2 1 2' is not even a child of node 'PART1 0 1'.
Rather, node 'PART1 0 1' and node 'PART2 1 2' are sibling nodes . . .
." (Reply Br. 4.)

The reference also depicts child links as vertical arrows pointing downward and sibling links as horizontal arrows. (FF 2.) As mentioned *supra*, the Examiner reads the claimed child pointer on the arrow pointing from PART1 0 1 node to the PART2 1 2 node. Figure 12C depicts the arrow pointing from PART1 0 1 node to the PART2 1 2 node as a vertical arrow, however, rather than a horizontal arrow. (FF 3.) Therefore, we find that the arrow pointing from PART1 0 1 node to the PART2 1 2 node is a sibling link rather than a child link.

Igata explains that each node has an element name, an offset in a row of sibling parts in the document, and a part-ID for identifying a meta part. (FF 2.) As mentioned *supra*, the Examiner explains "that 'PART1' is related to the corresponding child node ('PART2 1 2'), because '1' is included in 'PART1' and is related to 'PART2 1 2' ('1' in PART1 and '1' of PART2 1 2', emphasis added)." (Answer 13.) Based on Igata's explanation of Figure 2B (FF 2), we also agree with the Appellants that "for the node 'PART1 0 1', 'PART1' is the element name of the document part corresponding to the node" (Reply Br. 3), and "[f]or the node 'PART2 1 2', . . . '1' is the offset in the document for the document part corresponding to the node (*Id.*) Therefore, we also agree with them that "the '1' in node "PART1 0 1' has absolutely nothing to do with the '1' in node 'PART2 1.'" (*Id.* at 4.)

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The Examiner does not allege, let alone show, that the addition of Manikutty or Bailey cures the aforementioned deficiency of Igata.

CONCLUSION

Based on the aforementioned facts and analysis, we conclude that the Appellants have shown error in the Examiner's finding that Igata teaches storing a hint within a child pointer of a parent node, the hint being related to a corresponding child node and using the hint to determine whether to navigate to the corresponding child node when evaluating a query.

DECISION

We reversed the rejections of claims 1, 3-11, 13-21, and 23-36.

REVERSED

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